# STATEMENT OF BASIS APPLICATION FOR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND WASTE DISCHARGE REQUIREMENTS TO DISCHARGE TO STATE WATERS

Permittee Name: Date Gardens Mobile Home Park

NPDES Permit Number: CA0104841

Public Notice No.: 7-03-12

Board Order No.: R7-2003-0054

Mailing Address: Peter M. Ormond

518 Scenic Avenue

Piedmont, CA 94611-5337

Location: 1020 W. Evan Hewes Highway

El Centro, CA 92243

Contact Person: Peter M. Ormond

Telephone: (510) 653-5331

#### I. Status of Permit

Sharlene Robbins, previous owner of Date Gardens Mobile Home Park, submitted an application to update its Waste Discharge Requirements and to renew its permit to discharge wastewater under the National Pollutant Discharge Elimination System (NPDES). Peter Ormond, 518 Scenic Avenue, Piedmont, CA 94611-5537, recently purchased the facility. Operation of the wastewater treatment plant is under contract with Rocky Vandergriff Water Treatment Services, P.O. Box 815, Seeley, CA 92273. The application is for the wastewater treatment facility located at the address mentioned above.

#### II. Facility Description

This facility provides secondary treatment of domestic sewage from an existing 72-space mobile home park into two parallel activated sludge package treatment plants. The facility is located in Section 34, T15S, R13E, SBB&M. The Wastewater Treatment Facility consists of two package plants – one with a design capacity of 0.007 million gallons-per-day (MGD) or 7,000 gallon-per-day (GPD). The other package plant has a design capacity of 0.014 MGD or 14,000 GPD. The combined capacity of the wastewater treatment facility is 0.021 MGD or 21,000 GPD. The facility presently discharges an average daily flow of 0.00815 MGD of secondary treated water. Sewage from the mobile home park drains into a sump in front of the package plants and is pumped into the aeration chambers of the complete mix extended aeration package plants. The mixed liquor flows into a clarifier where solids settle out. Return activated sludge is periodically pumped back to the aeration basin and solids are periodically wasted to a cistern that is periodically pumped. Effluent exiting the clarifier enters an effluent weir box before being discharged into an enclosed subsurface tile drain and into Rice Drain No. 3. Waste

activated sludge from the plant is discharged once or twice a year to a cistern next to the plant. Once the sludge is dried, it is removed from the cistern and disposed of in a landfill.

The facility is required to have a disinfection system in operation by June 30, 2003. The facility is planning to install an ultraviolet light (UV) disinfection unit by June 30, 2003.

#### III. Description of Discharge

All wastewater discharged at this facility is discharged through Outfall 001 to Rice Drain No. 3 located in Section 33, T14S, R13, SBB&M. Rice Drain No. 3 flows approximately 7 miles before entering the New River about 30 miles from the Salton Sea. The discharge consists of secondary treated domestic wastewater.

#### IV. Receiving Water

The receiving water for Outfall 001 is Rice Drain No. 3, which flows to the New River.

- 1. The designated beneficial uses of waters of the Imperial Valley Drains and New River are:
  - a. Fresh Water Replenishment of Salton Sea (FRSH)
  - b. Water Contact Recreation (REC I)<sup>1</sup>
  - c. Non-Contact Water Recreation (REC II)<sup>2</sup>
  - d. Warm Water Habitat (WARM)
  - e. Wildlife Habitat (WILD)
  - f. Preservation of Rare, Threatened, or Endangered Species (RARE)<sup>3</sup>

#### V. Proposed Technology-Based Effluent Limitations

Regulations promulgated in 40 CFR §125.3(a)(1) require technology-based effluent limits for municipal dischargers to be placed in NPDES permits based on Secondary Treatment Standards.

#### a. Secondary Treatment Standards

<sup>1</sup> Unauthorized Use. The only REC 1 usage that is known to occur is infrequent fishing activity. The only REC 1 usage that is known to occur is from infrequent fishing activity (Imperial Valley Drains). Although some fishing occurs in the downstream reaches, the presently contaminated water in the river makes it unfit for any recreational use. An advisory has been issued by the Imperial County Health Department warning against the consumption of any fish caught from the river and the river has been posted with advisories against any body contact with the water (New River). <sup>2</sup> Unauthorized Use (Imperial Valley Drains).

<sup>&</sup>lt;sup>3</sup> Rare, endangered, or threatened wildlife exists in or utilizes some of these waterway(s). If the RARE beneficial use may be affected by a water quality control decision, responsibility for substantiation of the existence of rare, endangered, or threatened species on a case-by-case basis upon the California Department of Fish and Game on its own initiative and/or at the request of the Regional Board; and such substantiation must be provided within a reasonable time frame as approved by the Regional Board (Imperial Valley Drains and New River).

<u>Constituents</u>	<u>Unit</u>	30-Day <sup>4</sup> Arithmetic Mean <u>Discharge Rate</u>	7-Day <sup>5</sup> Arithmetic Mean <u>Discharge Rate</u>
20° C BOD <sub>5</sub> <sup>6</sup>	mg/L	30	45
Total Suspended Solids	mg/L	30	45

The 30-day average percent removal of the pollutant parameters BOD<sub>5</sub> and total suspended solids shall not be less than 85 percent.

The hydrogen ion (pH) of the effluent shall be maintained within the limits of 6.0 to 9.0.

Biochemical Oxygen Demand (BOD)	Discharges to waters that support aquatic life, that is dependent on oxygen. Organic matter in the discharge may consume oxygen as it breaks down.
Total Suspended Solids (TSS)	High levels of suspended solids can adversely impact aquatic habitat. Untreated or improperly treated wastewater can contain high amounts of suspended solids.
Hydrogen Ion (pH)	Hydrogen Ion (pH) is a measure of Hydrogen Ion concentration in the water. A range specified between 6 to 9 ensures suitability of biological life. This limitation has been adopted in the Basin Plan of the Region.

#### VI. Proposed Water Quality-Based Effluent Limitations

Effluent discharged from this facility could contain pollutants in sufficient quantities to affect receiving water quality. Pursuant to Section 13263, Article 4, Chapter 4 of the Porter Cologne Water Quality Control Act, the Regional Boards are required to issue Waste Discharge Requirements for discharges that could affect the quality of the State's waters. Furthermore, Federal Regulation 40 CFR 122.1 requires the issuance of NPDES permits for pollutants discharged from a point source to the waters of the United States. The draft discharge requirements contain specific discharge limitations for selected pollutants.

<u>Constituents</u>	Basis for Limitations
Total Dissolved Solids	High levels of TDS can adversely impact aquatic life. The TDS limit is from the Basin Plan of the Region.
Toxicity	Toxicity testing ensures that the effluent does not contain metals, chemicals, pesticides or other constituents in concentrations toxic to aquatic life.

<sup>&</sup>lt;sup>4</sup> 30 Day Mean- Arithmetic average of all samples collected during the calendar month

3

<sup>&</sup>lt;sup>5</sup> 7 Day Mean- Arithmetic average of all samples collected during a calendar week (Sunday through Saturday)

<sup>&</sup>lt;sup>6</sup> Biochemical Oxygen Demand

Escherichia Coli (E. coli) These limits are required by the Basin Plan for waters

designated for water contact recreation (RECI) or noncontact

water recreation (RECII).

Chlorine Residual This limitation is based on the USEPA's Ambient Water

Quality Criteria for Chlorine – 1984.

The following water quality based effluent limits are based on monitoring results and using the California Toxic Rule and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (The calculations are shown in Attachment "A"

Copper Average Monthly Effluent Limit (uq/L) = 2.39

Maximum Daily Effluent Limit (ug/L = 4.80

Mercury Average Monthly Effluent Limit (ug/L) = 0.051

Maximum Daily Effluent Limit (ug/L = 0.102

Nickel Average Monthly Effluent Limit (ug/L) = 6.71

Maximum Daily Effluent Limit (ug/L = 13.47

Selenium Average Monthly Effluent Limit (ug/L) = 4.09

Maximum Daily Effluent Limit (ug/L = 8.22

Wastewater effluent discharged to Rice Drain No. 3 shall not have a *Escherichia coli* (*E. coli*) concentration in excess of a log mean of Most Probable Number (MPN) of 126 MPN per 100 milliliters (based on a minimum of not less than five samples for any 30-day period) nor shall any sample exceed 400 MPN per 100 milliliters. The compliance point for this effluent limitation shall be at a location acceptable to the Regional Board's Executive Officer or his designee.

Wastewater discharged to Rice Drain No. 3 shall not contain a total chlorine residual greater than 0.02 mg/L as an instantaneous maximum and 0.01 mg/L as a monthly average. Compliance for this effluent limitation shall be at end of pipe prior to discharge into Rice Drain No. 3.8

There shall be no acute or chronic toxicity in the treatment plant effluent nor shall the treatment plant effluent cause any acute or chronic toxicity in the receiving water. All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, or bioassays of appropriate duration or other appropriate methods specified by the Regional Board.

<u>Constituents</u>	<u>Unit</u>	Mean Discharge Rate	Mean Discharge Rate
Total Dissolved Solids	mg/L	2,000	2,500

This requirement applies only if the facility installs a chlorination/de-chlorination unit process.

<sup>&</sup>lt;sup>7</sup> Compliance with the Average Monthly Effluent Limit shall be determined as described in Section 2.4.5 Compliance Determination (Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California).

#### VII. Proposed Effluent Limitations

Table 1, contained later in this Statement of Basis, summarizes the proposed effluent limitations for Outfall 001. Proposed effluent limitations are based on secondary treatment standards and Colorado River Basin Plan Water Quality Standards.

#### VIII. Monitoring Requirements

Monitoring for those pollutants expected to be present in the Outfall 001 will be required as shown on the proposed monitoring and reporting program and as required in the "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California" adopted March 2, 2000.

#### IX. Information Sources

While developing effluent limitations and receiving water limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used:

- (1) EPA NPDES Application Form 1 dated June 29, 2002 and Form 2C dated August 29, 2002.
- (2) Code of Federal Regulations Title 40
- (3) Water Quality Control Plan (Colorado River Basin Region 7) dated 1994.
- (4) Regional Board files related to Date Garden Mobile Home Park NPDES permit CA0104841.
- (5) Porter-Cologne Water Quality Control Act with additions and amendments effective January 1, 2000.
- (6) Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California adopted March 2, 2000.
- (7) California Toxics Rule, published May 18, 2000 by U.S. EPA.
- (8) National Toxics Rule (NTR), adopted by U.S. EPA on February 5, 1993.

## X. Written Comments

Interested parties and agencies are invited to submit written comments on the proposed Waste Discharge Requirements and the Regional Board's Executive Officer's proposed determinations. Comments should be submitted in writing not later than April 21, 2003, to:

Executive Officer
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

The application number shall appear on the first page of any submitted comments. All comments received by the above date will be considered in the formulation of the final determinations.

#### XI. Public Hearing

The Waste Discharge Requirements will be considered by the Regional Board at a public hearing to be held at the City Council Chambers, City of La Quinta, 78-495 Calle Tampico, La Quinta, CA 92253.

#### XII. Waste Discharge Requirements Appeals

Any person may petition the State Board to review the decision of the Regional Board regarding Waste Discharge Requirements. A petition must be made within 30 days of the Regional Board's hearing.

#### XIII. Additional Information

Persons wishing further information may write to the following address:

California Regional Water Quality Control Board Colorado River Basin Region 73-720 Fred Waring Drive, Suite 100 Palm Desert, CA 92260

or call the Regional Board at (760) 346-7491.

TABLE 1 PROPOSED EFFLUENT AND RECEIVING WATER LIMITATIONS NPDES PERMIT NO. CA0104841 **BOARD ORDER NO. R7-2003-0054** PETER M. ORMOND, OWNER/OPERATOR ROCKY VANDERGRIFF WATER TREATMENT SERVICES, OPERATOR DATE GARDENS MOBILE HOME PARK WASTEWATER TREATMENT PLANT

#### **EFFLUENT LIMITATIONS**

1. Representative samples of wastewater discharged to the Rice Drain No. 3 from the treatment facility shall not contain constituents in excess of the limits indicated below. The discharge to Rice Drain No. 3 shall be monitored at a location which is acceptable by the Regional Board's Executive Officer or his designee:

Constituent	<u>Unit</u>	30-Day Arithmetic Mean <u>Discharge Rate</u> <sup>9</sup>	7-Day Arithmetic Mean <u>Discharge Rate</u> <sup>10</sup>
20° C BOD <sub>5</sub> <sup>11</sup>	mg/L <sup>12</sup>	30	45
	lb/day <sup>13</sup>	5.3	7.9
Total Suspended Solids	mg/L	30	45
	lb/day	5.3	7.9
Total Dissolved Solids	mg/L	2,000	2,500

- The 30-day monthly average percent removal of the pollutant parameters BOD₅ and suspended solids shall not be less than 85 percent.
- 3. The hydrogen ion (pH) of the effluent shall be maintained within the limits of 6.0 to 9.0.
- 4. Beginning on June 30, 2003, unless otherwise approved by the Regional Board's Executive Officer, wastewater effluent discharged to the Rice Drain No. 3 shall not have a geometric mean Escherichia coli (E. coli) concentration in excess of 126 Most Probable Number (MPN) per 100 milliliters (based on a minimum of not less than five (5) samples for any 30-day period) nor shall any sample exceed 400 MPN per 100 milliliters. The compliance point for this effluent limitation shall be at a location acceptable to the Regional Board's Executive Officer or his designee.
- 5. Wastewater discharged to the Rice Drain No. 3 shall not contain a total chlorine residual greater than 0.02 mg/L as an instantaneous maximum and 0.01 mg/L as a monthly average. Compliance for this effluent limitation shall be at end of pipe prior to discharge into the Rice Drain No. 3. (Note: This requirement only applies if the facility installs a chlorination/de-chlorination unit process.)

<sup>9 30</sup> Day Mean - Monthly arithmetic mean sample concentration

<sup>&</sup>lt;sup>10</sup> 7 Day Mean- Weekly arithmetic mean samples concentration

<sup>&</sup>lt;sup>11</sup> BOD<sub>5</sub> - Biochemical Oxygen Demand

<sup>12</sup> mg/L - milligrams per Liter

<sup>&</sup>lt;sup>13</sup> lb/day – Design Flow x 8.34 x Concentration

- 6. There shall be no acute or chronic toxicity in the treatment plant effluent nor shall the treatment plant effluent cause any acute or chronic toxicity in the receiving water. All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, or bioassays of appropriate duration or other appropriate methods specified by the Regional Board.
- 7. Based on the Reasonable Potential Analysis, numeric Water Quality Based Effluent Limits are required for these constituents.

Constituents	<u>Unit</u>	Average Monthly <u>Effluent Limit</u>	Maximum Daily <u>Effluent Limit</u>
Copper	<i>u</i> g/L	2.39	4.80
Mercury	<i>u</i> g/L	0.051	0.102
Nickel	<i>u</i> g/L	6.71	13.5
Selenium	ug/L	4.09	8.22

### **RECEIVING WATER LIMITATIONS**

- 1. Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this permit. The discharge shall not cause the following in the Rice Drain No. 3:
  - a. Depress the concentration of dissolved oxygen to fall below 5.0 mg/L. When dissolved oxygen in the receiving water is already below 5.0 mg/L, the discharge shall not cause any further depression.
  - b. The presence of oil, grease, floating material (liquids, solids, foam and scum) or suspended material in amounts that create a nuisance or adversely affect beneficial uses.
  - c. Result in the deposition of pesticides or combination of pesticides to be detected in concentrations that adversely affect beneficial uses.
  - d. Aesthetically undesirable discoloration in the receiving water.
  - e. A significant increase in fungi, slime, or other objectionable growth.
  - f. Increase turbidity that results in affecting beneficial uses.
  - g. The normal ambient pH to fall below 6.0 or exceed 9.0 units.
  - h. Impact the receiving water temperature, resulting in adversely affecting beneficial uses.
  - i. Result in the deposition of material that causes nuisance or adversely affects beneficial uses.
  - The chemical constituents to exceed concentrations that adversely affect beneficial uses or create nuisance.

- k. Toxic pollutants to be present in the water column, sediments or biota in concentrations that adversely affect beneficial uses or that produce detrimental physiological responses in human, plant, animal, or aquatic life.
- Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to cause or otherwise adversely affect beneficial uses.
- 2. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Regional Board will revise and modify this Permit in accordance with such more stringent standards.